

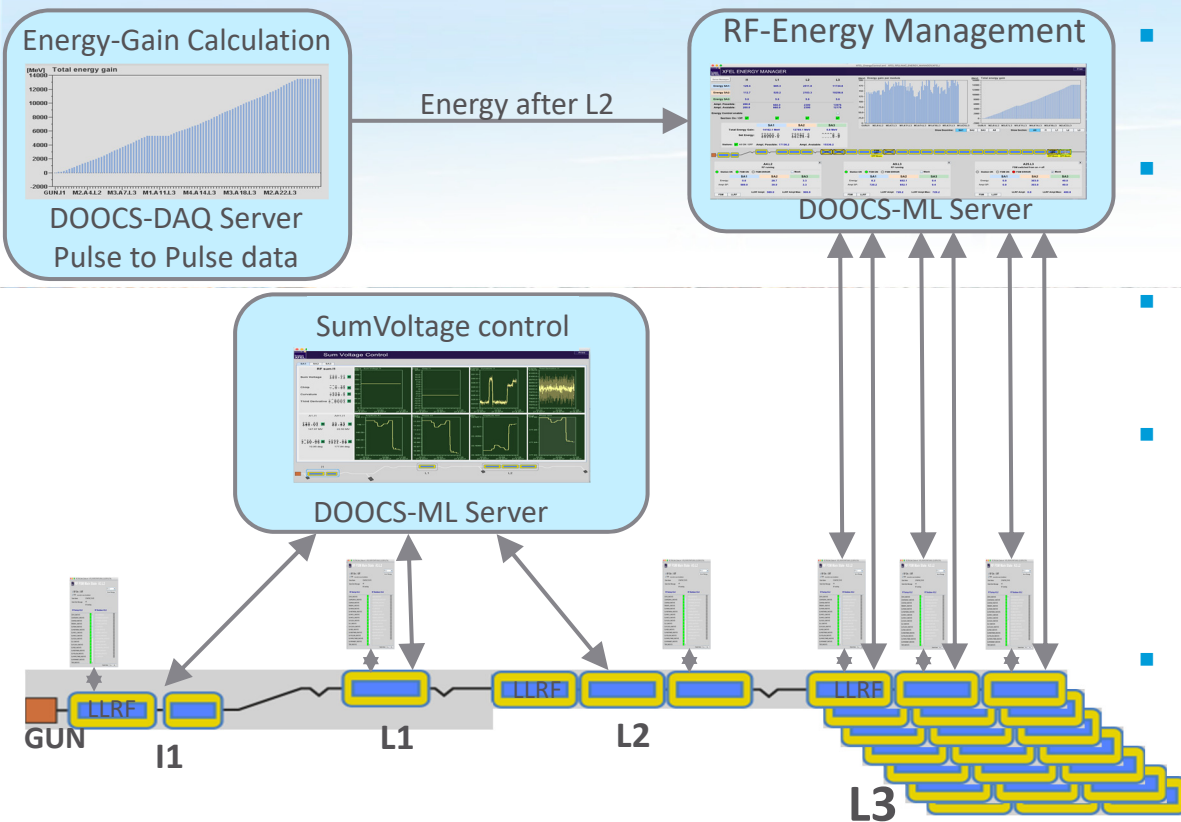


RF-Energy Management for the European XFEL

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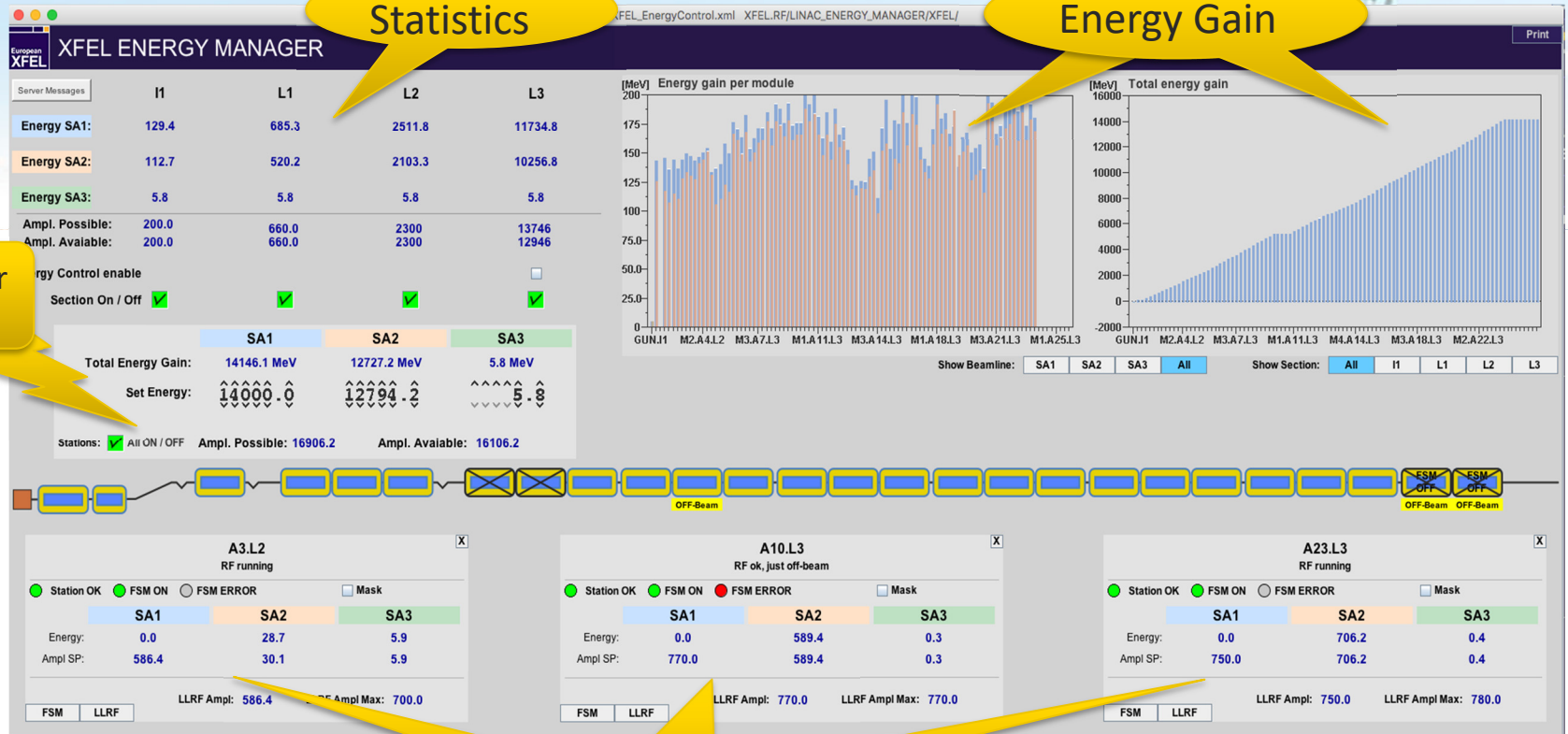
Poster Reference : THMPA04

Design Goal of the RF-Energy-Management



- Switch ON/OFF all 26 RF-stations with one click
- Standardize the energy distribution by an algorithm
- Allow to tune the overall Linac energy with one dial
- Recover the overall energy from a trip of a RF-station within few seconds
 - By shifting the trigger of the tripped RF-station by 1.5ms
- Should run as a DOOCS server in the background contiguously

jDDD User Interface for the RF-Energy Management



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Summery/Conclusion

- DOOCS Server implementation is ready
- Two algorithm to change the overall energy
 - Change the amplitude of all RF-stations
 - Change the phases alternating from one RF-station to the next
- First successfully test done at XFEL
 - Trip recovering works within seconds
- jDDD operator interface ready
- Need to gain experience with beam optics as the energy distribution may change
 - Seems more problematic then expected

